



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,522	11/14/2006	Congqi Li	CU-5003 RJS	9478
26530 7590 08/17/2009 LADAS & PARRY LLP 224 SOUTH MICHIGAN AVENUE SUITE 1600 CHICAGO, IL 60604				
EXAMINER ANWAR, MOHAMMAD S				
ART UNIT		PAPER NUMBER		
2416				
MAIL DATE		DELIVERY MODE		
08/17/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/589,522

**Applicant(s)**

LI, CONGQI

**Examiner**

MOHAMMAD ANWAR

**Art Unit**

2416

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 13-20 is/are allowed.
- 6) ☒ Claim(s) 1-12 and 21-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Allowable Subject Matter***

1. Claims 13-20 are allowed.

***Response to Arguments***

1. Applicant's arguments filed 4/28/09 have been fully considered but they are not persuasive.

In regards to applicant remarks, it is clear that the ONEs 600, 605 and OADM 30 are completely different things. The applicants respectfully submit that is improper for the Examiner to take these two different elements as equivalents of the switches of claim 1 (see Waverka et al. unidirectional switches).

In regards to applicant remarks, a first and a second switch, each of the first switch and the second switch has two unidirectional input ports and one unidirectional output port, and one of the input ports of the first switch is connected to the output port of the first switch under the control of the first switch, one of the input ports of the second switch is connected to the output port of the second switch under control of the second switch (see Waverka et al. Figure 3A).

2. All claim objections have been withdrawn.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-12 and 21-23 are rejected under 35 U.S.C. 102(e) as being unpatentable by Weverka (U.S. Patent No. 7,356,258 B1).

**For claims 1, 5 and 9,** Weverka et al. disclose a connection switching device for implementing Optical Channel Shared Protection Ring (Och-SPRing), used in a node of an optical network system with a working path and a backup path, comprising: a first and a second switch, each of which the first switch and the second switch has two unidirectional input ports (see Figure 3A, column 10 lines 14-15, column 38-41 which describes that the optical can have one or multiple input port connected to one or multiple output ports) and one unidirectional output port (see column 10 lines 38-41), and one of the input ports of the first switch is connected to the output port of the first switch under the control of the first switch (see Figure 3A), one of the input ports of the second switch is connected to the output port of the second switch under control of the second switch (see column 10 lines 38-41); wherein one input port of the first switch connects to and receives downlink service signals from a downlink direction of the working path (see Figure 17A which shows a working path), the other input port of the first switch connects to and receives the downlink service signals from a downlink direction of the backup path (see Figure 17B which shows a protection path), and the output port of the first switch connects and outputs the downlink service signals to a

local drop path (see column 10 lines 3-6 where the devices can be used for adding or dropping of signal channels therefore one device could be used for adding and the other could be for dropping channels); one input port of the second switch connects to and receives uplink service signals from a local add path (see column 10 lines 3-6 where the devices can be used for adding or dropping of signal channels therefore one device could be used for adding and the other could be for dropping channels), the other input port of the second switch connects to and receives the downlink service signals from the downlink direction of the backup path (see Figure 17B which shows a protection path) and the output port of the second switch connects to an uplink direction of the backup path (see Figure 17B which shows a protection path); and the local add path is connected with an uplink the uplink direction of the working path at the same time (see Figures 7A, 7B which shows local path connected to the working path).

**For claims 2, 6 and 10**, Waverka et al. disclose wherein, under normal modes of the device, the input port, which connects to the downlink direction of the working path, of the first switch, is connected to the output port of the first switch (see Figure 3 A, 315,325); under local drop modes, the input port, which connects to the downlink direction of the backup path, of the first switch, is connected to the output port of the first switch (see Figure 3 A, 310, 360); under local add modes, the input port, which connects to the local add path, of the second switch, is connected to the output port of itself (see Figure 3D) and under express modes, the input port, which connects to the downlink direction of the backup path, of the second switch, is connected to the output port of itself (see Figure 21 A, 2109, express mode).

**For claims 3, 4, 7, 8, 11 and 12,** Waverka et al. disclose both of the first and the second switches are optical switches; and, the first switch is an electric switch in an Optical Transformation Unit (OTU), and the second switch is an optical switch; and, the first switch is a logical switch, and the second switch is an optical switch (see column 2 lines 64-65).

**For claim 21,** Waverka et al. disclose a method for implementing Optical Channel Shared Protection Ring (Och-SPRing), applied to an optical the optical network system with a working and a backup, comprising: controlling a first switch to receive downlink service signals from the working path or the backup path when receiving the signals. wherein the first switch has two unidirectional input ports and one unidirectional output port (see Figure 3A, column 10 lines 14-15, column 38-41 which describes that the optical can have one or multiple input port connected to one or multiple output ports), one input port of the first switch connects to and receives the downlink service signals from a downlink direction of the working path (see Figure 17A which shows a working path), the other input port of the first switch connects to and receives the downlink service signals from a downlink direction of the backup path (see Figure 17B which shows a protection path), and the output port of the first switch connects and outputs the downlink service signals to a local drop transmitting uplink service signals received from a local device respectively to an uplink direction of the working path (see column 10 lines 3-6 where the devices can be used for adding or dropping of signal channels therefore one device could be used for adding and the other could be for dropping channels);and one of two input ports of a second switch when transmitting the

signals, wherein the second switch has two unidirectional input ports and one unidirectional output port, one input port of the second switch connects to and receives the uplink service signals from a local add path (see column 10 lines 3-6 where the devices can be used for adding or dropping of signal channels therefore one device could be used for adding and the other could be for dropping channels), the other input port of the second switch connects to and receives the downlink service signals from the downlink direction of the backup path (see Figure 17B which shows a protection path) and the output port of the second switch connects to the uplink direction of the backup path (see Figure 17B which shows a protection path); the local add path is connected with the uplink direction of the working path at the same time (see Figures 7A, 7B which shows local path connected to the working path); and controlling the second switch to choose the uplink service signals or the downlink service signals and output the selected signals to an uplink direction of the backup path (see Figures 21A and 21B).

**For claim 22,** Waverka et al. disclose under normal modes, the input port, which connects to the downlink direction of the working path, is connected to the output port of the first switch, under the control of the first switch; the signals from the downlink direction of the backup path are input to the local drop path through the first switch; the signals from the local add path are directly input to the uplink direction of the working path (Figure 3 A, 315,325); if the node needs to enter local drop modes, the input port, which connects to the downlink direction of the backup path, is connected to the output port of the first switch, under the control of the first switch; the signals from the downlink

direction of the backup path are input to the local drop path through the first switch (see Figure 3 A, 310, 360); if the node needs to enter local the local add modes, the input port, which connects to the local add path, is connected to the output port of the second switch, under the control of the second switch (see Figure 3D); the signals from the local add path are input to the uplink direction of the backup path through the second switch; if the node needs to enter express modes, the input port, which connects to the downlink direction of the backup path, is connected to the output port of the second switch, under the control of the second switch; the signals from the uplink direction of the backup path are input to the downlink direction of the backup path through the second switch (see Figure 21 A, 2109, express mode).

**For claim 23**, Waverka et al. disclose controlling the second switch to open the input port, which connects to the local add path port under the normal working modes (see column 10 lines 3-6 where the devices can be used for adding or dropping of signal channels therefore one device could be used for adding and the other could be for dropping channels)

### ***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within



TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD ANWAR whose telephone number is (571)270-5641. The examiner can normally be reached on Monday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick W. Ferris can be reached on 571-272-3123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/589,522  
Art Unit: 2416

Page 9

MOHAMMAD ANWAR  
Examiner  
Art Unit 2416

/M. A./  
Examiner, Art Unit 2416

/Derrick W Ferris/  
Supervisory Patent Examiner, Art Unit 2416